

CHARLES CAMP: COLLECTING LATE TRIASSIC VERTEBRATES IN THE
AMERICAN SOUTHWEST DURING THE 1920'S AND 1930'S

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One of the largest and most significant collections of Late Triassic vertebrates from the American Southwest is housed in the Museum of Paleontology of the University of California at Berkeley (UCMP). Much of this collection was made under the direction of Charles L. Camp during the 1920's and 1930's. Here, we present a brief review of Camp's Triassic work and include previously unpublished photographs of his fieldwork. Also presented are some new restorations of Late Triassic vertebrates.

Charles L. Camp (1893-1975) first collected Late Triassic vertebrates because of a telegram that he received in 1921 that drew him to the Petrified Forest in Arizona. That telegram read:

BERKELEY CALIFORNIA 1215P JUNE 4 1921

CHARLES CAMP

AMERICAN MUSEUM NATURAL HISTORY HERPETOLOGY DEPARTMENT/NEW YORK
NY

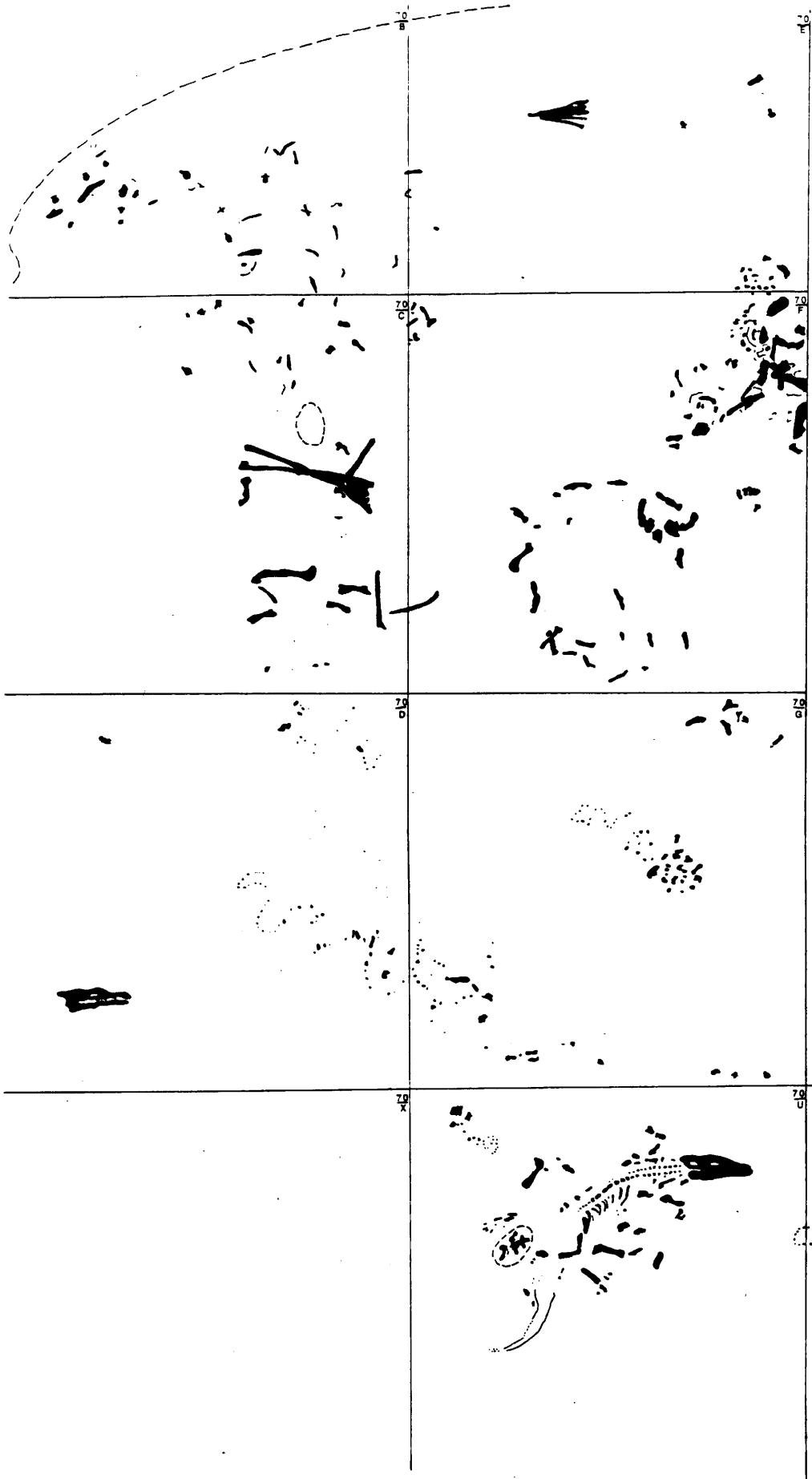
MISS ALEXANDER IS COLLECTING AT ADAMANA ARIZONA COULD YOU JOIN
HER IMMEDIATELY HAS SPECIMENS WANTS YOU TO SEE AND HELP GET OUT
TELEGRAPH HER AT ADAMANA AND SHE WILL TELEGRAPH THE MONEY FOR
TRANSPORTATION

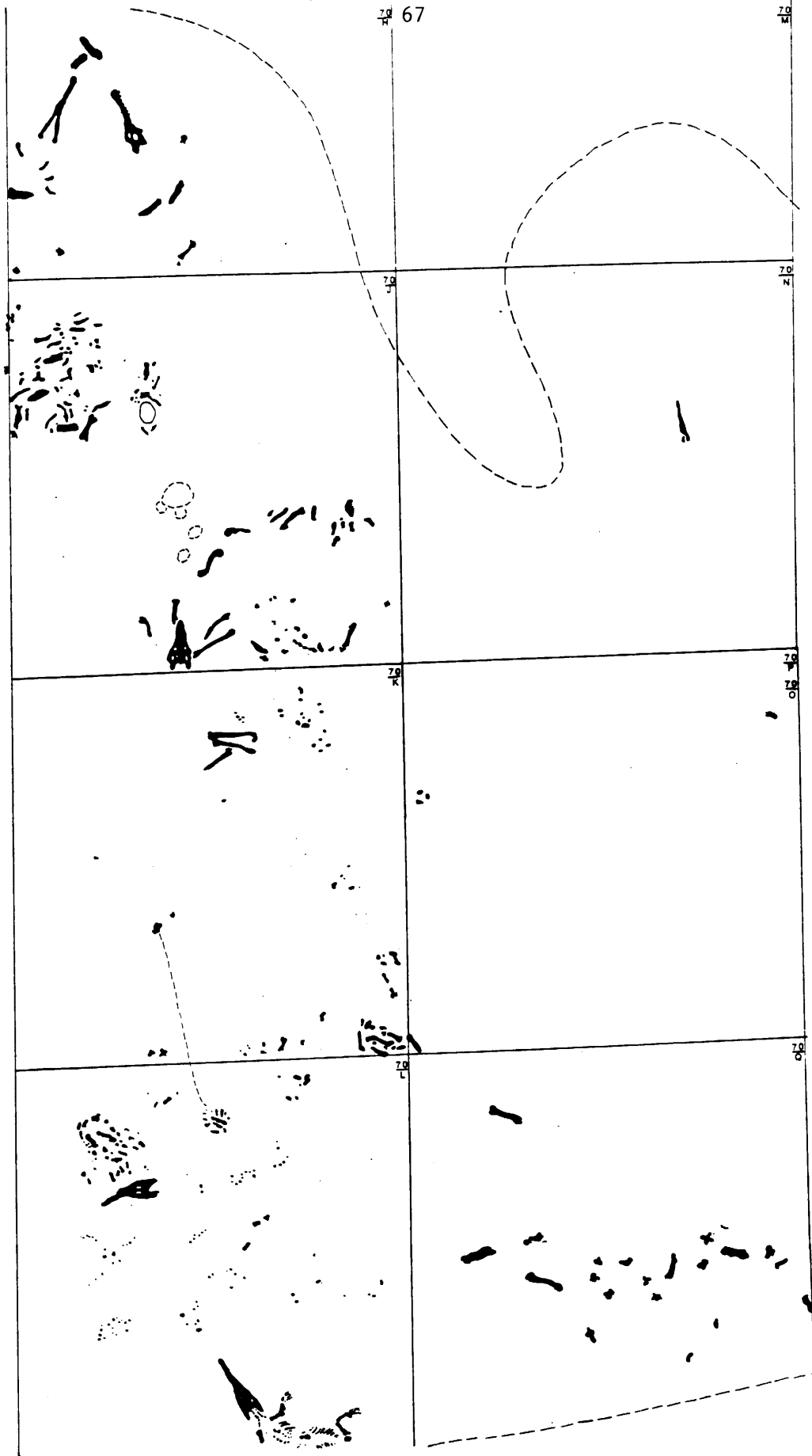
BRUCE L. CLARK

Thus began a campaign of vigorous collecting in the Chinle that lasted into the early 1930's, the story of which is told elsewhere (Welles, 1972). Particularly significant was the discovery and collection of two Chinle Formation quarries during those years:

1. The Canjilon quarry near Ghost Ranch in north-central New Mexico (Fig. 1; Plate 3, figs. A-B). Here 10 skulls of phytosaurs and partially articulated skeletons of Typothorax were collected.

FIGURE 1. (Next two pages) Map of part of the Canjilon phytosaur quarry (courtesy UCMP). Each square is approximately 6 m x 6 m.





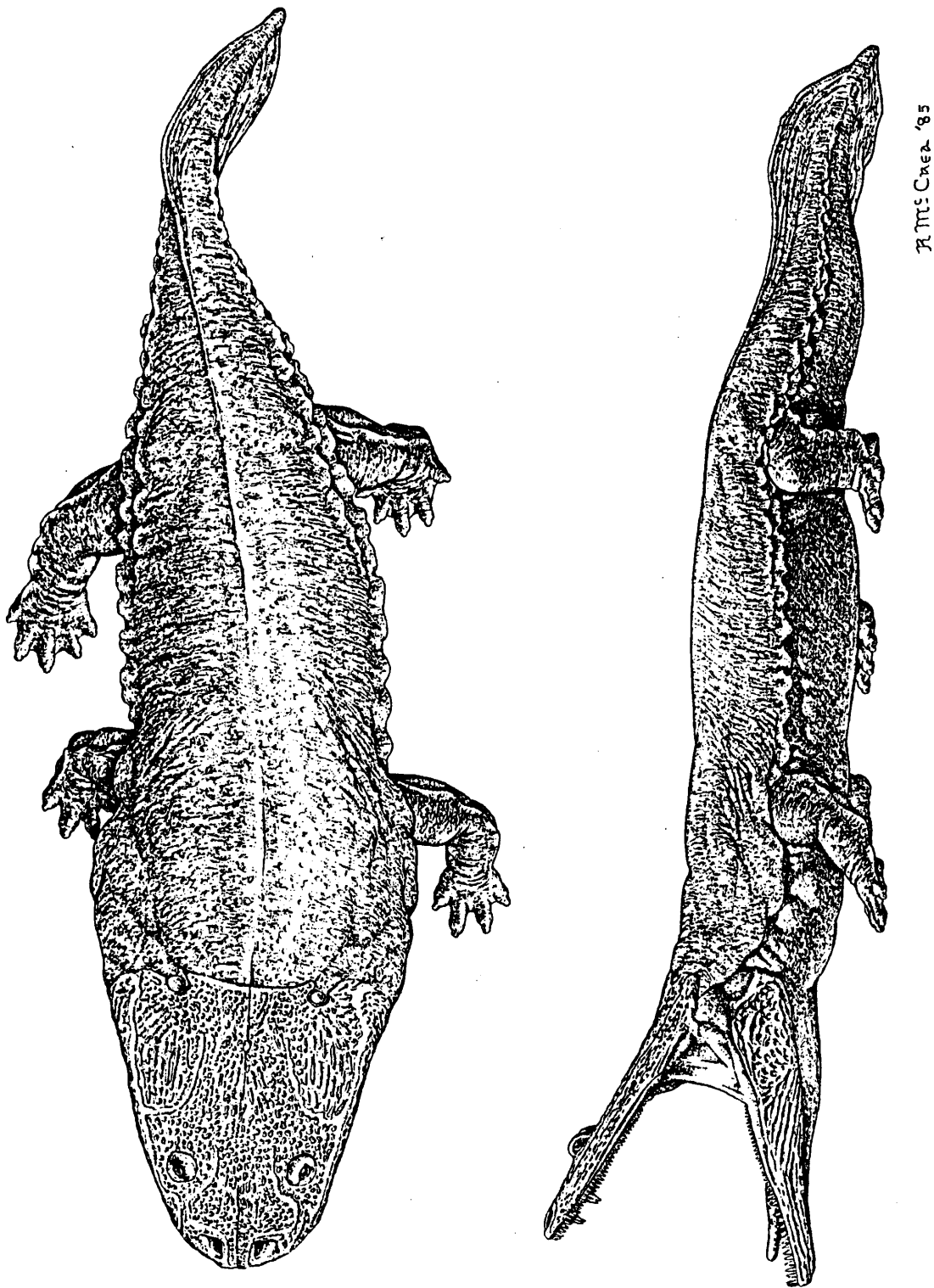
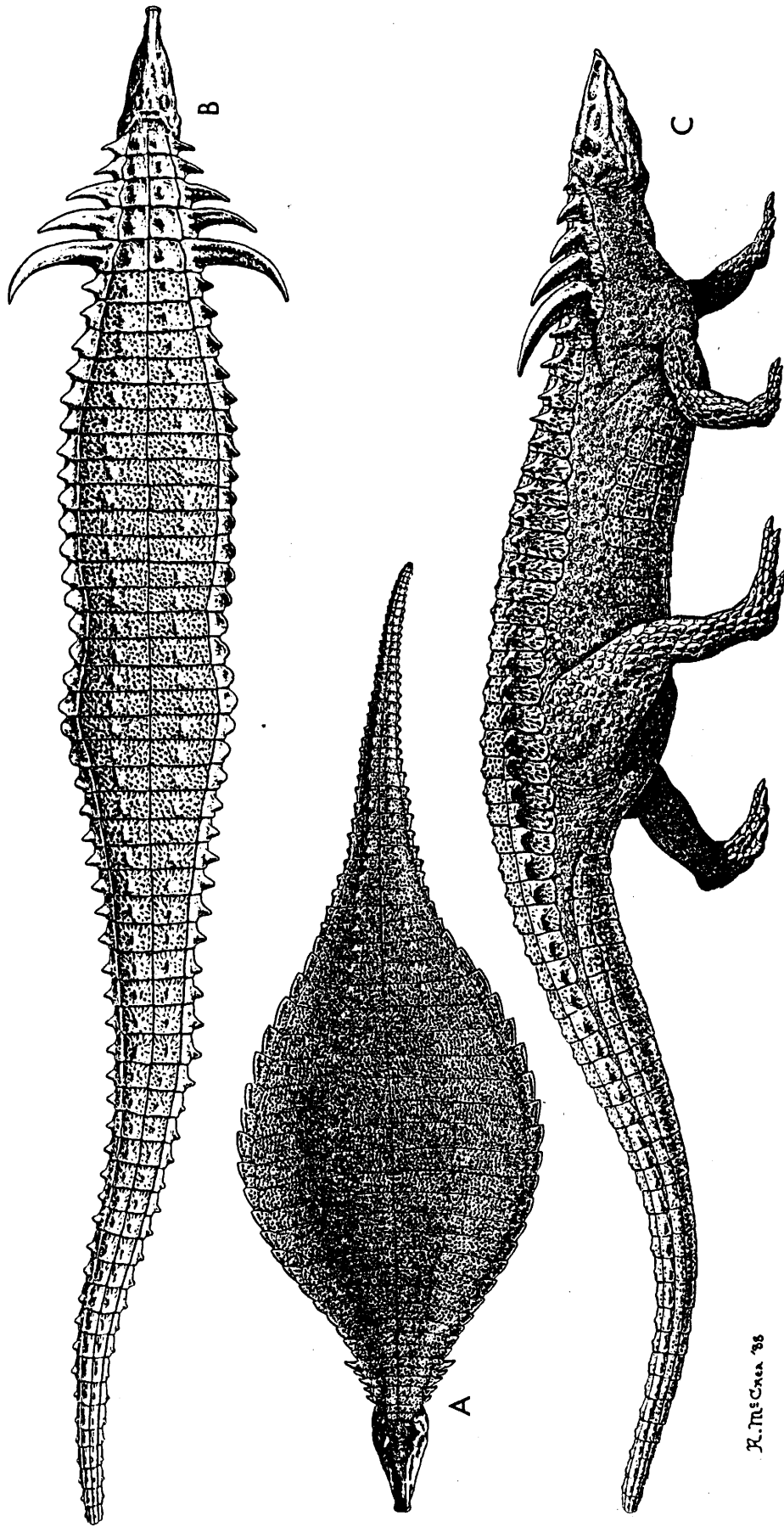


FIGURE 2. Restorations of the large labyrinthodont amphibian Metoposaurus fraasi, a common inhabitant of the Late Triassic ponds and swamps of the American Southwest drawn by R. T. McCrea under the direction of R. A. Long (courtesy of Mr. and Mrs. O. A. Long).

FIGURE 3. (Facing page) Restorations of the aetosaurs Typothorax coccinarum (A) and Desmatosuchus haplocerus (B-C). Drawn by R. T. McCrea under the direction of R. A. Long (courtesy of Mr. and Mrs. O. A. Long).



R. M. S. C. M. 35

This quarry produced the finest phytosaur skeleton ever found in North America, a specimen now on display at UCMP.

2. The Placerias quarry near St. Johns Arizona (Plate 1, fig. A; Plate 2, figs. A-D). The large dicynodont reptile Placerias (Camp, 1956; Camp and Welles, 1956) was only the most conspicuous element of this extremely prolific and diverse fossil assemblage.

Other significant collections were made from within the Petrified Forest National Park (Plate 1, figs. B-D; Plate 3, figs. C-D). The material Camp and his associates collected not only formed the nucleus of the important collection of Late Triassic vertebrates at the UCMP, but is one of the primary bases for understanding the larger Late Triassic vertebrates from the American Southwest (Figures 2, 3). And, it will continue to be a source of research on the dawn of the age of dinosaurs for decades to come.

REFERENCES

- Camp, C. L., 1956, Triassic dicynodont reptiles. Part II. Triassic dicynodonts compared: *Memoirs of the University of California*, v. 13, p. 305-348.
- Camp, C. L. and Welles, S. P., 1956, Triassic dicynodont reptiles. Part I. The North American genus Placerias: *Memoirs of the University of California*, v. 13, p. 255-304.
- Welles, S. P., 1972, Fossil-hunting for tetrapods in the Chinle Formation: a brief history: *Museum of Northern Arizona, Bulletin*, v. 47, p. 13-18.

PLATE CAPTIONS

PLATE 1. A, Charles L. Camp at the Placerias quarry, 1930 (photograph by S. P. Welles). B, E. L. Furlong, June 1923, working at the type locality of the phytosaur Rutiodon zunii in the "Blue Hills" northeast of St. Johns, Arizona (photograph by Charles L. Camp). C, Skull of the large labyrinthodont Metoposaurus fraasi in the "Blue Hills," 1930 (photograph by Charles L. Camp). D, Excavation (at top of slope near man) at the type locality of the phytosaur Rutiodon adamanensis, Blue Forest, 1921 (photograph by Charles L. Camp). All photographs courtesy of the UCMP.

PLATE 2. A, Campsite at Placerias quarry near St. Johns, 26th June 1932; left to right: George Barrington, Robert Arriss, C. D. Somers, Charles L. Camp and Charley Duke (photograph by S. P. Welles). B, Excavation at Placerias quarry, 28 May 1932; left to right: S. P. Welles, G. Heid, G. Barrington, C. D. Somers and R.

Arriss (photograph by Charles L. Camp). C, Placerias quarry, 1931 (photograph by Charles L. Camp). D, S. P. Welles and concentration of bone at the Placerias quarry, 1931 (photograph by Charles L. Camp). All photographs courtesy of the UCMP.

PLATE 3. A, Canjilon quarry, 1930, C. L. Camp in foreground. B, Canjilon quarry, 1930, skull and skeleton in place (photograph by Charles L. Camp). C, Partial skeleton of a phytosaur, the type specimen of Rutiodon adamanensis, Blue Forest, 1921 (photograph by Charles L. Camp). D, Miss Annie Alexander's camp at Blue Forest, May-June 1921 (photograph by Charles L. Camp). All photographs courtesy of the UCMP.